Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, D. C. 20554

In the Matter of	)	
	)	
Amendment of Parts 13 and 80 of the Commission's Rules Concerning Maritime Communications	)	WT Docket No. 00-48
	)	
Petition for Rule Making Filed by Globe Wireless, Inc.	)	RM-9499
	)	
Federal Communications Bar Association's Petition for Forbearance from Section 310(d) of the Communications Act Regarding Non-Substantial Assignments of Wireless Licenses and Transfers of Control Involving Telecommunications Carriers	)	
	)	
and	)	
	)	
Personal Communications Industry Association's Broadband Personal Communications Services Alliance's Petition for Forbearance for Broadband Personal Communications Services	)	

COMMENTS OF THE UNITED STATES COAST GUARD

The United States Coast Guard (Coast Guard or USCG) respectfully submits these Comments in response to the Notice of Proposed Rulemaking (Notice) RM-9499 released March 24, 2000 in the above-captioned proceeding.

Introduction

As stated in the first paragraph of this rulemaking, the purpose of the rulemaking "is to address new international maritime requirements, improve the operational ability of all users of marine radios and remove unnecessary or duplicative requirements from our Rules." The US Coast Guard attempted to accommodate the Federal Communications Commission's (FCC or Commission) request by proposing many routine regulation updates and deletions. It was not possible to provide a comprehensive review of Part 80 regulations in the time provided to meet the stated purpose of this rulemaking. Many updates not addressed here are still needed. Changes include updates necessitated by changes to international conventions, elimination of regulations describing technology or

procedures no longer used, standards necessitated by the introduction of narrowband (interstitial) radio emissions authorized under a previous proceeding, and the introduction of universal shipborne automatic identification systems. The Coast Guard also notes that the Commission has deferred resolution of certain Part 80 issues to the pending PR Docket No. 92-257. The Coast Guard believes a report and order with further rulemaking, and possibly a memorandum opinion and order, may be necessary to complete the task. Because many of these changes affect safety, this further rulemaking and report and order should not be inordinately delayed.

Content Summary

The US Coast Guard submits comments in the following matters:

Part I. Comments in response to FCC questions

Part II. General comments to Part 80
1. GMDSS, Subpart W
2. Implementation of ITU Word Radio Conference decisions
3. General Information, including Subpart A
4. Operating requirements and procedures, Subpart C
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9. Compulsory radiotelephone installations for small passenger vessels, Subpart S
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13. Survival craft radio equipment
14. Automatic Identification System (AIS)

Part III. Editorial corrections to the existing Part 80.

Part I. Comments in response to questions by the Commission

Para. 17. GMDSS Subpart W. The FCC proposed adding a general exemption from certain GMDSS requirements for all ships that sail continuously within VHF radiotelephone coverage, expiring one year after the USCG establishes appropriate Sea Area A1 coast stations, and sought what qualification requirements should apply to that exemption. As this is consistent with the

existing temporary exemption affecting commercial fishing vessels over 300 gross registered tons (grt) and small passenger ships, we can accept an exemption applied to the same vessels to which the temporary exemption already applies. A continued watch on channel 16 would still be required during the period of the exemption.

The USCG recommends that all GMDSS vessels operating under such an exemption be equipped with:

A 406 MHz EPIRB
A NAVTEX receiver or other means of receiving Marine Safety Information when operating in areas where NAVTEX service is not available.
A search and rescue transponder (SART) for their survival craft and
A radiotelephone system for use for their survival craft.

We note that the Commission proposes this exemption under Section 80.1071 of its rules, however Appendix A of the proposed rule does not include suggested language.

The Coast Guard does not however support a general exemption for GMDSS ships within coastal VHF radiotelephone coverage not already covered under the existing temporary exemption. VHF DSC was developed, and is required, as a ship-to-ship as well as a ship-to-shore radiocommunications system. An effective and reliable ship-to-ship distress & safety radiocommunications is needed regardless of whether the USCG establishes appropriate Sea Area A1 service.

Para. 19. Commission-issued (or designee-issued) certificate of compliance. The USCG reaffirms that it may elect to rely on the Commission-issued (or designee-issued) certificate of compliance in fulfilling our responsibilities under Section 365 of the Communications Act. We urge the Commission to ensure that designees are properly inspecting radio installations by appropriate means.

Para. 20. Elimination of Subpart Q. The FCC seeks comment on their proposal to eliminate all the requirements of Subpart Q, with the exception of § 80.825, and asks whether any other requirements relating to radiotelegraphy should be retained. The USCG concurs with the Commission proposal to delete Subpart Q, provided the those radar requirements contained in Section § 80.825 are updated as necessary and retained within Part 80.

There are no commercial or government operated coast radio stations providing any Morse radiotelegraphy services located in the United States or its territories.

Accordingly, the USCG recommends that all references to the use of Morse radiotelegraphy throughout Part 80 be deleted and have indicated in Part III of these comments recommended deletions.

The USCG does not recommend retention of any provision for voluntary Morse radiotelegraphy installations or inclusion of a body of rules within Part 80 to authorize such compliance. In the unlikely event, that an installation subject to the Commission's Rules required such an installation, necessary rules could be handled on an exemption basis. Discussions with numerous shipping interests indicate no plans for such a requirement.

Note, however, that the radio direction finding apparatus described in § 80.818-823 is still required by the Communications Act, with no provisions for waiver. The USCG is considering asking Congress to eliminate that provision, and asks for Commission support in that event. Since the continued requirement for the radio direction finer apparatus is considered to be temporary, the USCG believes it should be eliminated from Part 80 as soon as the necessary legislation is adopted.

Note that if § 80.802 is retained, the corrected FCC phone number (for forms) should be included. A consistent listing of the number throughout Part 80 would be helpful to all concerned. Currently the number takes three forms.

Para. 22. International Electrotechnical Committee (IEC) Standards
The FCC asked for comment on whether IEC Test Standards should be incorporated by reference into their rules, and if so, which specific standards should be included. The Commission also sought comment on how to simplify the means for keeping these general technical standards updated in the future.

The International Electrotechnical Commission is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). In the US, the American National Standards Institute (ANSI) holds IEC membership. IEC (TC) 80, develops and publishes test standards for maritime navigation and radiocommunications equipment, based upon existing International Maritime Organization (IMO) and International Telecommunications Union (ITU) standards and recommendations.

The USCG strongly supports applying IEC standards applicable to equipment specified in Part 80, unless an equivalent, up-to-date national standard, such as the Radio Technical Commission for Maritime Services (RTCM), is already specified.

The USCG proposes that the IEC standards listed below should be incorporated into § 80.1101. Note that IEC 945, already included in this section is superceded by IEC 60945. IEC standards are available from the International Electrotechnical

Commission, 3 rue de Varembe, Geneva Switzerland, as well as from their web site at http://www.iec.ch.

IEC 61097-1 Ed. 1.0	Global maritime distress and safety system (GMDSS) - Part 1: Radar transponder - Marine search and rescue (SART) - Operational and performance requirements, methods of testing and required test results
IEC 61097-3 Ed. 1.0	Global maritime distress and safety system (GMDSS) - Part 3: Digital selective calling (DSC) equipment - Operational and performance requirements, methods of testing and required testing results *Note: Ed. 2.0 should be available in 2002, and should be incorporated into FCC regulations at that time.*
IEC 61097-4 Ed. 1.0	Global maritime distress and safety system (GMDSS) - Part 4: INMARSAT-C ship earth station and INMARSAT enhanced group call (EGC) equipment - Operational and performance requirements, methods of testing and required test results
IEC 61097-6 Ed. 1.0	Global maritime distress and safety system (GMDSS) - Part 6: Narrowband direct-printing telegraph equipment for the reception of navigational and meteorological warnings and urgent information to ships (NAVTEX) - Operational and performance requirements, methods of testing and required test results
IEC 61097-7 Ed. 1.0	Global maritime distress and safety system (GMDSS) - Part 7: Shipborne VHF radiotelephone transmitter and receiver - Operational and performance requirements, methods of testing and required test results
IEC 61097-8 Ed. 1.0	Global maritime distress and safety system (GMDSS) - Part 8: Shipborne watchkeeping receivers for the reception of digital selective calling (DSC) in the maritime MF, MF/HF and VHF bands - Operational and performance requirements, methods of testing and required test results
IEC 61097-9 Ed. 1.0	Global maritime distress and safety system (GMDSS) - Part 9: Shipborne transmitters and receivers for use in the MF and HF bands suitable for telephony, digital selective calling (DSC) and narrow band direct printing (NBDP) - Operational and performance requirements, methods of testing and required test results
IEC 61097-10 Ed. 1.0	Global maritime distress and safety system (GMDSS) - Part 10: Inmarsat-B ship earth station equipment - Operational and performance requirements, methods of testing and required test results

IEC 61097-12 Ed. 1.0	Global maritime distress and safety system (GMDSS) - Part 12: Survival craft portable two-way VHF radiotelephone apparatus - Operational and performance requirements, methods of testing and required test results
IEC 60945 Ed. 3.0*	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results. ** Note: Edition 4.0 to this standard will be available April 2001, and should be used in place of Edition 3.0*

Since IMO, ITU, IEC and RTCM standards referenced in Part 80 are periodically updated, and older standards specified in the regulations become superceded and are often no longer available or applicable, a means for simplifying the updates of standards is necessary.

The USCG proposes that the Commission seeks means, such as amending delegated authority in § 0.331 of its regulations, which would allow Part 80 regulations to reflect the most current edition of standards, including IEC test standards. The Coast Guard stands ready to assist the Commission at any time in determining or obtaining the latest version of any standard on request. The USCG further proposes that a list of IEC, ITU, IMO and RTCM standards incorporated by reference be placed in a separate Annex or Subpart under Part 80, to allow keeping those standards up to date to be accomplished as simply and smoothly as possible. The USCG also proposes that in cases where a standard is amended or is fully superceded by another from the same issuing organization, that the amended or superceded standard be allowed to apply in place of the older on a permissive basis. We propose that words be included in Part 80 to that affect.

Para. 24, Safety watch requirements and procedures, Subpart G. The Commission sought comment on a proposal that a watch on VHF ch16 continue until 1 Feb. 2005, that voluntary VHF DSC-equipped vessels keep watch on ch70, and also sought comments on the need for and the nature of any regulations to ensure adequate watchkeeping facilities and procedures until adequate GMDSS shore communications are established. The Coast Guard agrees that means should be taken to ensure that our domestic rules discussed in para. 23 are in conformance with international rules. In most instances, these international rules were adopted with the active participation of or at the request of the US. Only in the case where a compelling national interest arises should our domestic rules provide differently and if such a case arises, we should work to convince the international community to change the international rules. We

understand that it may be necessary to seek legislative authority to ensure our domestic rules remain in agreement with the international rules.

The USCG agrees with the recommendations of the GMDSS Task Force that the Commission update its rules relating to distress, urgency and safety procedures pertaining to the use of 500 and 8364 kHz.

Concerning vessel watchkeeping on ch16, the USCG proposes that this requirement continue for compulsory ships (ships required to carry applicable radio equipment). Since the IMO Maritime Safety Committee will review the need to continue a VHF channel 16 watch prior to 1 Feb. 2005, a decision on discontinuing that watch should be made at that time. The paramount safety issue is that vessels subject to the Safety of Life at Sea Convention and others in the same waterway must have a means of establishing communications.

Vessels voluntarily equipped with VHF DSC radios should keep watch on either channel 16 or 70 when the radio is operating. Once compulsorily equipped vessels are allowed to discontinue their watch on channel 16, vessels voluntarily equipped with DSC-capable radios should be allowed to discontinue their watch on channel 16 or 9, and keep watch on ch70 thereafter.

Voluntary watchkeeping. § 80.310 allows noncommercial vessels voluntarily-equipped with VHF to maintain a watch on 156.450 MHz (channel 9) as an alternative to 156.800 MHz (channel 16). The USCG requests that these provisions for using channel 9 as an alternative calling frequency to channel 16 be eliminated, effective on the date when watchkeeping on channel 16 by compulsory-equipped vessels, as described above, is eliminated. The justification for using channel 9 as an alternative to channel 16 was to reduce congestion on channel 16. DSC's implementation and use should be sufficient to eventually and substantially reduce the need for channel 9 as an alternative calling channel.

Radio watchkeeping requirements for voluntary radio installations described in § 80.1153(b) can be amended to remove the reference to 80.146, and replace the reference to § 80.148 with § 80.310.

2182 kHz. Subpart R vessels should continue to guard 2182 kHz until MF DSC equipment is installed and operational. Noting the ITU recommendation that compulsory vessels voluntarily maintain such a watch when a significant number of non-compulsory vessels are in the vicinity, the USCG does not consider such a watch on 2182 kHz of much practical benefit. FCC regulations are only applicable to a very small number of compulsory Subpart R vessels. While the USCG currently maintains and has no plans to discontinue its shore-based watch on 2182 kHz, we have observed a continuing decline in its use.

Para. 26. Frequencies, Subpart H

The Coast Guard concurs with Globe Wireless regarding the efficient use of spectrum and recommends the proposal to permit spectrum usage as authorized by ITU World Radio Conference (WRC) 1997. The USCG notes that the Commission implemented some, but not all, of these changes to the US National Table of Allocations from WRC's 92, 95 and 97. We suggest that the changes by these WRCs be incorporated in this Part 80 proceeding. Although not part of this proceeding, the Coast Guard recommends that the complete U.S. National Table of Allocations be updated to incorporate results from past WRCs.

The USCG concurs with the recommendations of the GMDSS Task Force and has included suggested changes later in our comments.

The USCG supports the proposals made by the FCC, and makes the following additional proposals:

WRC97 APS 18 (Table of Transmitting Frequencies in the VHF Maritime Mobile Band designated channels 75 (156.775 MHz) and 76 (156.825 MHz), the guardbands for the distress, safety and calling channel 16, for port operations and ship movement, restricted to navigation-related communications only, with all precautions taken to avoid harmful interference to channel 16, e.g. by limiting the output power to 1W or by means of geographical separation. We propose that the table in 80.373(f) be amended to include these two channels under Port Operations section, with the following footnote FNXX assigned to it:

FNXX. The frequencies 156.775 and 165.825 MHz are available for navigation-related port operations or ship movement only, and all precautions shall be taken to avoid harmful interference to channel 16. Transmitter output power is limited to 1 watt for ship stations, and 10 watts for coast stations.

The USCG proposes that these two frequencies be allocated to the federal government and the non-government on an equal, shared basis.

The USCG further proposes that § 80.215 be amended to include a new footnote FNYY assigned to (c)(1) and (e)(1).

FNYY. The frequencies 156.775 and 156.825 MHz must not exceed 1 watt for ship stations, and 10 watts for coast stations.

§ 80.215(g)(3): amend to say " ...must automatically reduce the carrier power to one watt or less when the transmitter is tuned to 156.375 and 156.650 MHz, and 156.775 and 156.825 MHz if capable of operating on those frequencies, and must be provided...". Add to the end of this section: "No override capability is permitted for 156.775 and 156.825 MHz."

§ 80.363 Frequencies for facsimile. The table in § 80.363 and footnote US296 contained in § 02.106 do not match ITU Radio Regulation APS 17 Table of frequencies assignable to ships for wideband. US296 was implemented in MO&O DA99-2743 in December 1999. Allocation footnote US296 as adopted by the National Telecommunications and Information Administration is consistent with RR APS17. The Coast Guard proposes the Commission amend US296 and § 80.363 to be consistent with RR APS 17 and NTIA's listing of US296.

FCC version:
US296 In the bands designated for ship wide-band telegraphy, facsimile and special transmission systems, the following assignable frequencies are available to non-Federal government stations on a shared basis with Federal government stations: 2070.5, 2072.5, 2074.5, 2076.5, 4154.5, 4169.5, 6235.5, 6259.5, 8302.5, 8338.5, 12370.5, 12418.5, 16551.5, 16614.5, 18847.5, 18868.5, 22181.5, 22238.5, 25123.5, and 25159.5 kHz.

NTIA version
US296 In the bands designated for ship wide-band telegraphy, facsimile and special transmission systems, the following assignable frequencies are available to non-Federal Government stations on a shared basis with Government stations: 2070.5, 2072.5, 2074.5, 2076.5, 4154, 4170, 6235, 6259, 8302, 8338, 12370, 12418, 16551, 16615, 18848, 18868, 22182, 22238, 25123, and 25159 kHz.

§ 80.373(f). Editorial. In the table, change the header for channel 22A at the end of the table to read "Liaison and Safety Broadcasts, U.S. Coast Guard", to reflect how the frequency is being used.

§ 80.374 While no changes are proposed, this section needs to be reviewed for conformance to WRC actions.

§ 80.375. Delete sections (a)(1) and (2), (d)(2)(vii), (d)(3), (d)(4), as they are no longer used in the US. Replace section (e) with "Search and rescue radar transponder. See subpart W." (or appropriate subpart if Subpart W is not retained)

Para. 28 Vessels 300 grt, Subpart R. The Commission sought comment whether this subpart could be deleted. The USCG fully agrees to the deletion of Subpart R, less § 80.879.

Para. 30 EPIRBs, Subpart V. USCG Comments concerning this Subpart are provided in Part II below.

Para 32-33 Fishing vessels over 300 grt and the GMDSS. The FCC sought comment on their proposal to extend this GMDSS exemption for fishing vessels

of 300 grt and over, and asks whether the extension will place fishing vessels that are in distress at a greater safety risk.

While this extension is in effect, fishing vessels may not have the same degree of reliable emergency telecommunications, particularly long range two-way communications, communications with certain other categories of ships, and back-up power arrangements, that GMDSS-equipped vessels would have. However, although GMDSS will improve their emergency telecommunications capability, we believe these fishing vessels should have adequate time to obtain this equipment, and therefore do not object to the extension regarding DSC equipment proposed.

The USCG concurs with the Commission's affirmation that fishing vessel of 300 gross tons or more are considered "cargo ships" and, therefore, subject to the GMDSS regulations. While fully aware that the SOLAS Convention exempts fishing vessels, since they are regulated by the GMDSS requirements of the not-yet-ratified Torremolinos Convention (Safety of Fishing Vessels), the U.S. has never made such a distinction in its radio regulations.

The USCG concurs with the proposal that the GMDSS conditional waiver previously granted by the Commission continue until one year after the declaration of GMDSS Sea Area A1 or GMDSS Sea Area A2. Since DSC-equipped radios meeting the requirements for A1 and for A2 are separate and distinct, the temporary, conditional exemption from the GMDSS DSC communications equipment requirements proposed should also be handled separately. For example, the exemption from carrying MF-DSC capable radios should end one year after the USCG declares an A2 Sea Area appropriate to the operating area of the vessel. Similarly, the exemption from carrying VHF-DSC capable radios should end one year after the USCG declares an A1 Sea Area.

The USCG could support limited exemptions for fishing vessels over 300 grt and similar vessels that operate solely within VHF coverage of a Coast Guard shore station.

The USCG notes that the probability of the USCG receiving a DSC-initiated distress alert will always be higher than the probability of receiving a call from the same vessel on a voice frequency in the same band, for reasons of propagation physics. This is especially true for MF and HF. The USCG plans to declare an A2 Sea Area shortly.

The Coast Guard notes that many fishing vessels to which GMDSS would be otherwise applicable routinely operate outside of GMDSS Sea Areas A1 and A2 and require GMDSS Sea Area A3 equipment in any event. For example, it is not possible for a fishing vessel based in a US West Coast port to travel to the Alaskan fishing grounds by the most direct route without passing outside of the most liberal definition of GMDSS Sea Areas A1 or A2.

The Commission is correct in its assumption that USCG and a limited number of foreign stations maintain and will continue to maintain distress and safety watches on 2182 kHz and Channel 16; however as noted above many fishing vessels today travel outside of reliable range of these channels. The USCG cannot agree with the Commission's tentative conclusion that fishing vessels, particularly those in transit, remain within the radiotelephone coverage of coast stations. For example, the USCG in Alaska maintains a watch of 4125 kHz as do many fishing vessels, due to range and other limitations of other safety related frequencies.

Based on historic government and industry data and most recently a joint Industry/USCG Fishing Vessel Casualty Task Force report entitled "Dying to fish, Living to Fish" issued in March 1999 after the loss of four fishing vessels and 11 lives in a three week period amply demonstrated that "Commercial fishing continues to rank at or near the top of the most hazardous occupations in the United States". This report is available from http://www.uscg.mil/hq/g-m/moa/docs/fvctf.doc.

We further note that many nations have reached similar conclusions and have taken steps to make GMDSS requirements applicable to fishing vessels including fishing vessels smaller than 300 gross tons. Examples are:

> Canada has just concluded rule making effective early next year that extends GMDSS requirements to fishing vessels. See ship station (radio) regulations 1999, which comes into force 1 April 2001 to 1 February 2003. See http://canada.gc.ca/gazette/part2/pdf/g2-13414.pdf
>
> GMDSS requirements contained within the Torremolinos Convention (Safety of Fishing Vessels, International Maritime Organization, IMO-793E, ISBN 92-801-1317-8, 1995 edition) have been placed into force by the European Union Directive in advance of the Convention itself entering into force. The US is a signatory to this Convention however it has not been submitted to nor ratified by the US Senate.

The maintenance of two different communications systems on the high seas with differing requirements for vessels increases the risk that ships complying with GMDSS system will simply not hear a vessel complying with the differing system. A likely outcome of differing systems is a decrease in safety.

Para. 39, Credit for Proof of Passing USCG Training. The Coast Guard supports the Commission's conclusion accepting a Coast Guard endorsement issued to a master or mate holding a valid USCG GMDSS endorsement of their license as required proof that such individual meets the Commission's requirements for issuance of a FCC GMDSS Radio Operator's license or, if created, a Restricted GMDSS Radio Operator's license.

The Coast Guard notes that it does not certify GMDSS maintainers.

Further comments concerning commercial operator licenses are included below.

Part II, General Comments to Part 80

Global Maritime Distress & Safety System (GMDSS), Subpart W

Incorporation of IMO and ITU Standards, Recommendations and Regulations

The FCC proposed to incorporate the current International Maritime Organization (IMO) and International Telecommunications Union (ITU) standards, recommendations and regulations into their rules, and sought comments. The USCG supports incorporation of those updates, but notes many additional updates from IMO and ITU rules were not, perhaps inadvertently, included in the proposed rulemaking. Additionally, updates are needed in Subparts other than W (GMDSS). We propose those updates be incorporated in FCC regulations.

IMO Resolutions

In November 1995, the IMO Assembly decided that performance standards for radio and navigational equipment, as well as amendments thereto, should hereafter be performed by its Maritime Safety Committee (IMO Res. A.825(19)). Standards and amendments adopted since that date are published as MSC Resolutions.

Those MSC Resolutions that should be incorporated into Part 80 Subpart W are as follows. These amendments to performance standards should be included in § 80.1101:

RESOLUTION MSC.68(68) - ADOPTION OF AMENDMENTS TO PERFORMANCE STANDARDS FOR SHIPBORNE RADIOCOMMUNICATION EQUIPMENT

Amendments to the following performance standards adopted by the Assembly, set out in Annexes 1 to 4 to the present resolution:

(a) *Resolution A.803(19) - Performance Standards for Shipborne VHF* Radio Installations Capable of Voice Communication and Digital Selective Calling (Annex 1);

(b) Resolution A.804(19) - Performance Standards for Shipborne MF Radio Installations Capable of Voice Communication and Digital Selective Calling (Annex 2);

(c) Resolution A.806(19) - Performance Standards for Shipborne MF/HF Radio Installations Capable of Voice Communication, Narrow-Band Direct-Printing and Digital Selective Calling (Annex 3); and

(d) Resolution A.807(19) - Performance Standards for Inmarsat-C Ship Earth Stations Capable of Transmitting and Receiving Direct-Printing Communications (Annex 4);

IMO also adopted the following performance standards for aeronautical two-way VHF radiotelephone equipment. The Coast Guard recommends the Commission determine the best way of implementing this requirement.

RESOLUTION MSC.80(70) - ADOPTION OF NEW PERFORMANCE STANDARDS FOR RADIOCOMMUNICATION EQUIPMENT

Annex 1: RECOMMENDATION ON PERFORMANCE STANDARDS FOR ON-SCENE (AERONAUTICAL) PORTABLE TWO-WAY VHF RADIOTELEPHONE APPARATUS

Annex 2: RECOMMENDATION ON PERFORMANCE STANDARDS FOR ON-SCENE (AERONAUTICAL) TWO-WAY VHF RADIOTELEPHONE APPARATUS FOR FIXED INSTALLATIONS

Copies of applicable MSC Resolutions are available electronically at no charge from the US Coast Guard from http://www.navcen.uscg.mil/marcomms/imo/document.htm.

IMO Amendments to SOLAS

A 1995 SOLAS Conference, which met 20-29 November 1995, made several amendments to Chapter IV of the SOLAS Convention, which regulates GMDSS equipment on ships. These amendments entered into force on 1 July 1997. These amendments were made to Regulations 6, 7 and 16, described below.

The 69th Session of the IMO Maritime Safety Committee made several additional GMDSS amendments to SOLAS Chapter IV, Regulations 13, 15 and 18. Those amendments enter into force on 1 July 2002.

The following SOLAS amendments affect Part 80 and should be included in it. The Coast Guard notes that some of these regulations are already in effect for vessels subject to the SOLAS Convention, and recommends the Commission bring the rest of these changes into effect by 1 July 2002:

Regulation 6 – Radio installations. (**§ 80.1083)**

4. In passenger ships, a distress panel shall be installed at the conning position. This panel shall contain either one single button which, when pressed, initiates a distress alert using all radiocommunications installations required on board for that purpose or one button for each individual installation. The panel shall clearly and visually indicate whenever any button or buttons have been pressed. Means shall be provided to prevent inadvertent activation of the button or buttons. If the satellite EPIRB is used as the secondary means of distress alerting and is not remotely activated, it shall be acceptable to have an additional EPIRB installed in the wheelhouse near the conning position.

5. In passenger ships, information on the ship's position shall be continuously and automatically provided to all relevant radiocommunications equipment to be included in the initial distress alert when the button or buttons on the distress panel is pressed.

6. In passenger ships, a distress alarm panel shall be installed at the conning position. The distress alarm panel shall provide visual and aural indication of any distress alert or alerts received on board and shall also indicate through which radiocommunication service the distress alerts have been received.

Regulation 7 – Radio equipment: General (**§ 80.1085)**

5. Every passenger ship shall be provided with means for two-way on-scene radiocommunications for search and rescue purposes using the aeronautical frequencies 121.5 and 123.1 MHz from the position from which the ship is normally navigated.

Regulation 13 - Source of energy (**§ 80.1099**). In paragraph 8, the words ", including the navigation receiver referred to in regulation 18," are inserted after the word "chapter".

Regulation 15 - Maintenance requirements (**§ 80.1105**). The following new paragraph 9 is added after existing paragraph 8: "9 Satellite EPIRBs shall be tested at intervals not exceeding 12 months for all aspects of operational efficiency with particular emphasis on frequency stability, signal strength and coding. However, in cases where it appears proper and reasonable, the Administration may extend this period to 17 months. The test may be conducted on board the ship or at an approved testing or servicing station."

To implement Regulation 15, the USCG proposes to revise § 80.1085 (a)(6) as follows. The Coast Guard further recommends this annual EPIRB test requirement be added to the FCC Information Bulletin *How to Conduct a GMDSS Inspection* referenced in § 80.1067(a):

§ 80.1085(a)(6) A satellite emergency position-indicating radio beacon (satellite EPIRB) which must be:

(i) Capable of transmitting a distress alert through the polar orbiting satellite service operating in the 406 MHz band (406 MHz EPIRB); ~~and~~

(ii) Installed in an easily accessible position, ready to be manually released and capable of being carried by one person into a survival craft, capable of floating free if the ship sinks and of being automatically activated when afloat, and capable of being activated manually, and

(iii) Examined and tested annually in accordance with IMO Circular MSC/Circ.882, Guidelines on annual testing of 406 MHz satellite EPIRBs.

Regulation 16 – Radio personnel. (**§ 80.1073)**

2. In passenger ships, at least one person qualified in accordance with paragraph 1 shall be assigned to perform only radiocommunication duties during distress situations.

Regulation 18 - Position-updating (draft new **§ 1085(e)**).

All two-way communication equipment carried on board a ship to which this chapter applies which is capable of automatically including the ship's position in the distress alert shall be automatically provided with this information from an internal or external navigation receiver, if either is installed. If such a receiver is not installed, the ship's position and the time at which the position was determined shall be manually updated at intervals not exceeding four hours, while the ship is underway, so that it is always ready for transmission by the equipment." The Coast Guard supports the Commission's proposed new § 1085(e).

Specifics of those amendments to Regulations 6, 7 and 16 are contained in SOLAS Consolidated Edition, 1997, published by the International Maritime Organization, and available from their bookstore at http://www.imo.org. MSC 69/22/Add.1 ANNEX 2, which contains the approved Safety of Life at Sea (SOLAS) Convention amendments to the other regulations, is available from http://www.navcen.uscg.mil/marcomms/imo/document.htm. MSC/Circ.882 is available at http://www.imo.org.

Editorial, structural and related changes to Subpart W

Regulations applicable only on dates that have past, such as **§ 80.1085(c), § 80.1065(a)** through **(b)(6), § 80.1071(b)(3),** and **§ 80.1074(b)(3)** should be deleted.

§ 80.1065(d) might be deleted, as similar authority is contained in § 80.333.

§ 80.1067 might be deleted, as requirements are covered in § 80.59.

§ 80.1069 Maritime Sea Areas. While subsection (a) is accurate as written, the Coast Guard suggests this section be rewritten to be more informative to a U.S. licensee, and to be enforceable. For example, Sea Areas A1 and A2 coast could additionally be expressed in distances off applicable portions of the U.S. coast, based upon the coverage charts we will make available. Replace the text in section (b) with such words similar as the following: "Maritime Sea Areas are delineated in the Master Plan of Shore-Based Facilities for the Global Maritime Distress and Safety System (GMDSS Master Plan), published by the International Maritime Organization as a GMDSS circular. This GMDSS circular with corrigendums, as well as information concerning Maritime Sea Areas A1 and A2 in waters surrounding the U.S., are available at http://www.navcen.uscg.mil/marcomms/."

§ 80.1071 Exemptions. The Coast Guard recommends that exemptions be generally restricted, and limited to the requirements contained in § 80.1085, 1087 and 1089. Exemptions should normally be restricted to the carriage of a 9 GHz search and rescue transponder and the requirements regarding receipt of maritime safety information by means other than a VHF radiotelephone, provided the functional requirement the devices provide is available by other means. Additionally, the Coast Guard recommends that exemptions for a single voyage outside the normal Sea Area be time limited.

§ 80.1085 – 1093 are difficult to interpret. The Coast Guard recommends these sections be replaced by a simplified table or tables showing equipment required for each Sea Area, followed by reference to standards that equipment must meet. One abbreviated example for accomplishing this, applicable to Sea Area A1, is:

§ 80.108X Ship radio equipment – Sea Area A1

a. VHF radiotelephone
b. VHF DSC on channel 70
c. VHF DSC watch receiver, in addition to b.
d. 9 GHz Search and Rescue Transponder
e. NAVTEX receiver
f. Equipment suitable for reception of maritime safety information (only if normal operations outside of appropriate NAVTEX coverage)
g. 406 MHz Category 1 EPIRB
h. VHF handheld for survival craft

Formatting this information as a table would be preferable. The Coast Guard is willing to work with Commission staff to accomplish this.

§ 80.1101 Performance standards. The Coast Guard recommends ITU-R Recommendation M.541 (series), Operational Procedures for the Use of

Digital Selective-Calling Equipment in the Maritime Mobile Service, be included in a new sub-paragraph in sections (c)(2), (c)(3) and (c)(4).

§ 80.1103 Equipment authorization. The Coast Guard recommends this section be reviewed, and updated or moved to other subparts as appropriate.

Implementation of ITU World Radio Conference decisions

The 1997 ITU World Radio Conference (WRC97) made several decisions affecting Part 80. Although the Commission proposed including at least one WRC97 decision into their regulations (GMDSS position update (S32.5B)), other decisions were not. We propose that the following WRC decisions be included into Part 80 (note certain other WRC recommendations are included in other sections of these comments):

Add (from WRC97 Final Acts ADD S32.10A) to Subpart W,

§ 80.316(bis) False distress alerts. A distress alert is false if it was transmitted without any indication that a mobile unit or person was in distress and required immediate assistance. Transmitting a false distress alert is prohibited and may be subject to the provisions of Part 1 Subpart A if that alert:

(a) was transmitted intentionally;

(b) was not cancelled in accordance with § 80.316(bis2);

(c) could not be verified as a result of either the ship's failure to keep watch on appropriate frequencies in accordance with § 80.1123 or Subpart G, or its failure to respond to calls from the U.S. Coast Guard;

(d) was repeated; or

(e) was transmitted using a false identity.

§ 80.316(bis2) Procedures for canceling false distress alerts. If a distress alert is inadvertently transmitted, the following steps shall be taken to cancel the distress alert.

(a) VHF Digital Selective Calling

(i) Reset the equipment immediately;

(ii) Transmit a DSC distress alert cancellation (i.e. own ship's acknowledgment), if that feature is available;

(iii) Set to channel 16; and

(iv) Transmit a broadcast message to "All stations" giving the ship's name, call sign or registration number, and maritime mobile service identity (MMSI), and cancel the false distress alert.

(b) MF Digital Selective Calling

(i) Reset the equipment immediately;

(ii) Transmit a DSC distress alert cancellation (i.e. own ship's acknowledgment), if that feature is available;

(iii) Tune for radiotelephony transmission on 2182 kHz; and

(iv) Transmit a broadcast message to "All stations" giving the ship's name, call sign or registration number, and maritime mobile service identity (MMSI), and cancel the false distress alert.

(c) HF Digital Selective Calling

(i) Reset the equipment immediately;

(ii) Transmit a DSC distress alert cancellation (i.e. own ship's acknowledgment), if that feature is available, on each frequency on which the distress alert was transmitted;

(iii) Tune for radiotelephony on the distress and safety frequency in each band in which a false distress alert was transmitted; and

(iv) Transmit a broadcast message to "All stations" giving the ship's name, call sign or registration number, and maritime mobile service identity (MMSI), and cancel the false distress alert frequency in each band in which a false distress alert was transmitted.

(d) Inmarsat ship earth station. Immediately notify the appropriate rescue coordination center that the alert is cancelled by sending a distress priority message by way of the same land earth station through which the false distress alert was sent. Provide ship name, call sign or registration number, and Inmarsat identity with the cancelled alert message.

(e) Emergency Position Indicating Radio Beacon (EPIRB). If for any reason an EPIRB is activated inadvertently, immediately contact the nearest U.S. Coast Guard unit or appropriate RCC by telephone, radio or ship earth station and cancel the distress alert.

(f) General and other distress alerting systems. Notwithstanding the above, ships may use additional appropriate means available to them to inform the nearest appropriate U.S. Coast Guard rescue coordination center that a false distress alert has been transmitted and should be cancelled.

Add **§ 80.1114: False distress alerts**. The provisions of § 80.316(bis) and § 80.316(bis2) apply.

Changes to table of allocations from previous WRCs

§ 2.106 and § 80 should be amended to incorporate changes to the table of allocation not already adopted in other proceedings. The Coast Guard proposes the following changes be implemented in this proceeding.

S5.131 and § 80.1077 Frequencies. Footnote 8 concerning 490 kHz has expired and should be deleted. Footnote 9, which states "Frequency 4209.5 kHz is not used in the United States (see 47 CFR 2.106 footnote 520A)", should also be

deleted. The footnote 520A identified in § 80.1077 no longer exists. 4209.5 kHz is an internationally-recognized and used Navtex frequency, and the Coast Guard plans to operate 4 MHz Navtex on a trial basis as a means of improving maritime safety broadcast service to mariners, and covering gaps in coverage of similar information broadcast on the International Navtex frequency 518 kHz. The Coast Guard requests ITU Radio Regulation footnote S5.131, currently included in the International table of Part 2.105 of the Commissions regulations, be consequently included in the United States table as well. S5.131 states that "The frequency 4209.5 kHz is used exclusively for the transmission by coast stations of meteorological and navigational warnings and urgent information to ships by means of narrow-band direct-printing techniques." The international use for safety purposes and propagation characteristics of this frequency obviates its use for any other purpose.

S5.84 Navtex. Footnote 474 was amended at WRC95 and WRC97 by S5.84, and should be deleted in favor of that new WRC97 footnote.

S5.79 Navtex. S5.79 is applicable to 490 kHz, 518 kHz and 4209.5 kHz and should be adopted in the US for government and non-government.

S5.82 490 kHz Navtex. Footnote 472A was amended at WRC95 and WRC97 by S5.82, and should be deleted in favor of that new WRC97 footnote.

S5.83 500 kHz. Footnote 472 was amended at WRC95 by S5.83, and should be deleted in favor of that new footnote.

General Information, including Subpart A

§80.05 Definitions

Distress signal should be aligned with S32.9 of the ITU Radio Regulations, to include a person, and to remove references to radiotelegraphy.

Distress traffic should be aligned with S32.40, and should include a person.

Inland waters should be amended to cite 33 CFR 80.01

Maritime mobile service identities should be amended to include the abbreviation MMSI.

Navigable waters should be adjusted to reflect the current wording of 33 CFR 2.05

Pilot should be updated to reflect the current Title 46 US Code requirements.

Include a new definition "*Universal shipborne automatic identification system (AIS).* A system in the maritime mobile service by which vessels and designated shore stations broadcast, in accordance with International Maritime Organization and International Telecommunications Union Recommendations, a unique identifier, positions, intentions and safety related port and waterway information to similarly equipped vessels and shore stations in order to improve collision avoidance and facilitate vessel tracking.

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Safety Signal and *Urgency Signal* should be amended to remove mention of radiotelegraphy.

Include a new definition *Vessel traffic service area (VTSA).* An area defined at the request of the U.S. Coast Guard to which regulations related to vessel traffic services apply.

§ 80.13 Station license required

§ 80.13(b) Recommend delete "Radiotelegraph"

§ 80.13(c) Recommend this regulation be amended to allow a ship earth station to be licensed by rule, to reflect current practice. Additionally, the word "of" should be inserted between "requirement" and "any" in the first sentence.

§ 80.15(e)(1). Delete. Class C EPIRBs are no longer authorized.

§ 80.15(e)(2) To provide consistency with proposed §§ 80.1053 and 80.1055, revise as follows:

(2) In accordance with §§ 80.1053 and 80.1055, Class A or B EPIRB stations will be authorized for use on board the following types of vessels until December 31, 2006:

§ 80.51 Ship earth station licensing. Recommend this paragraph be deleted, to reflect current practice.

§ 80.57 Canada/USA channeling arrangement for VHF maritime public correspondence The Coast Guard recommends this section be reviewed and amended to reflect recent vessel public correspondence auctions, recently revised Canadian/USA agreements, and current practices.

General editorial comments. Numerous updates to names of international organizations, addresses, and ITU Radio Regulation numbering are needed throughout Part 80. For example:

"CCIR (International Radio Consultative Committee)" and "CCITT" should be changed to ITU-R (International Telecommunications Union Radiocommunications Sector)" and "ITU-T", respectively.

Most ITU Radio Regulation Articles and Appendixes now have an "S" proceeding the reference. For example, Appendix 18 is now Appendix S18.

Change the address for the USCG AMVER office (e.g. Subpart R & S) to "AMVER Maritime Relations, USCG Battery Park Building, Room 201, New York, New York 10004-1499".

Change the address for RTCM to Radio Technical Commission for Maritime Services (RTCM), Suite 600, 1800 Diagonal Road, Alexandria VA 22314, http://www.rtcm.org.

Operating Requirements and Procedures, Subpart C

§ 80.91 Order of priority of communications. This section is outdated, and should be replaced by the text of Article S53 of the ITU Radio Regulations.

§ 80.103 Digital selective calling (DSC) operating procedures. This whole section should be replaced with the following: "

(a) Operating procedures for the use of DSC equipment in the maritime mobile service are as contained in ITU-R Recommendation M.541 (series) and Subpart W (or Subpart G if previous Coast Guard comments are adopted) of these regulations.

(b) When using DSC techniques, coast stations and ship stations must use maritime mobile service identities (MMSI) assigned by the Commission or its designees."

(c) Group calls to vessels under the common control of a single entity are authorized. A group call identity may be created from an MMSI ending in a zero, assigned to this single entity, by deleting the trailing zero and adding a leading zero to the identity.

§ 80.145 Class C EPIRB operational procedures. This section should be deleted.

General Technical Standards, Subpart E

Requirements for selective calling equipment.

RTCM Special Committee 101 has developed Recommended Practices for Digital Selective Calling Equipment Design and Implementation, intended to identify and recommend corrections for many of the problems identified with

DSC. Although many recommendations affect changes to standards, certain proposed changes to the Commissions regulations concerning DSC. The USCG proposes those recommendations be implemented in the Commission's regulations in § 80.225. Editorial changes are also proposed for this section.

Editorial. Since Class C DSC is no longer recognized by ITU and § 80.225(a) essentially eliminates that Class as an option, the USCG proposes § 80.225(b) be deleted. § 80.179(e) should also be deleted, as well as its reference in § 80.225(a), since § 80.225(a) obviates § 80.179(e).

RTCM SC101 Recommended Practices. Add to end of § 80.225(a). All DSC equipment must:

(i) allow the operator to disable any automatic radiotelephone channel switching function,

(ii) allow the operator the option of manually acknowledging any call,

(iii) not allow the automatic composition of a distress relay alert whose acknowledgment had already been received,

(iv) automatically erase any position information not updated for more than 23½ hours,

(v) explicitly prohibit the offering of wrong identities in relay messages,

(vi) ensure that default selections in a displayed menu requesting input, when allowed, should as a minimum follow ITU-R Recommendation M.541. A default selection shall never cause an improper or illegal operation.

§ 80.209(a)(5)(iv) delete 156.750 and 156.800 MHz.

§ 80.213(h). The band limits in this section should be expanded to 2900-3100 and 9300-9500 MHz, consequential to previous allocation changes made in § 2.106.

§ 80.213(l). This section concerning ship transponders can be deleted. See comments to Subpart M below.

§ 80.215(e)(7) (Class C EPIRBs) delete.

§ 80.215(n)(3) (transponders) Delete the second sentence.

Station Documents, Subpart I

§ 80.409(e)(7): The USCG recommends editorially changing references to "Officer of the Deck" to "Officer in charge of the navigational watch".

Stations in the Radiodetermination Service – Subpart M

§ 80.605(b), (c), and **(d)** describe Coast Guard coordination requirements for certification and use of coast and ship station ship transponders which operate in the marine radar band 2900-3100 and 9300-9500 MHz. Except for radar beacon (racon) stations described in § 80.605(a), these transponder devices have never gone into general use. Since these paragraphs were adopted over ten years ago, no manufacturer has applied for certification of transponders under the provisions of § 80.605(b). The development of universal shipborne automatic identification system (AIS) equipment described later should replace any need for shipborne transponders. For this reason, the Coast Guard proposes that paragraphs (b), (c) and (d) be deleted, replaced by the following:

§ 80.605(b) Coast station transponders (i.e. radar beacons, or racons) operating the band 2900-3100 or 9300-9500 MHz shall meet the requirements of ITU-R Recommendation M.824-2. Applications for certification of these transponders must include a description of the technical characteristics of the equipment including the scheme of interrogation and the characteristics of the transponder response, and test results demonstrating the device meets each applicable requirement of this ITU-R recommendation.

§ 80.605(c) The use of ship station transponders in the band 2900-3100 or 9300-9500 MHz other than those described in § 80.1085 (a) (3) and § 80.1095(b) is prohibited.

Compulsory radiotelephone installations for small passenger vessels, Subpart S

§ 80.905(a)(1) and (2): The Commission proposes that this section be amended such that VHF and MF radios required in this section be DSC-equipped. The class of DSC equipment needs to be specified in both these subparagraphs. The Coast Guard proposes that the DSC-equipped VHF radio described in subparagraph (1) meet ITU-R Rec. M.493 (series) Class A, B or D, and the DSC-equipped MF radio described in subparagraph (2) meet ITU-R Rec. M.493 (series) Class A, B or E.

§ 80.905(a)(3)(iii)(A) and (4)(iii)(A): The Coast Guard notes that with AT&T's closure of its three high seas radio coast stations recently approved by the Commission (MO&O DA 99-1567 adopted Aug 6, 1999), ships operating outside MF coastal coverage relying on an HF single sideband transceiver may not be able to reliably contact the Coast Guard in an emergency. The Coast Guard has implemented an HF DSC capability at three Pacific and four Atlantic communications stations. Noting that MF and MF/HF maritime radios are similarly priced, the Coast Guard proposes that newly-fitted single sideband

radios required in this section be DSC-equipped in accordance with ITU-R Rec. (series) M.493 Class A, B or E.

§ 80.905(a)(3)(iii)(B) and (4)(iii)(B): Since this section was adopted, Inmarsat has offered ship earth stations that are not designed to offer emergency calling capability. Examples include the Inmarsat D, a satellite pager, and Inmarsat mini-M, a ship earth station without a distress calling function. The Coast Guard therefore proposes that this section be revised to limit the ship earth stations authorized under this section to Inmarsat A (existing units only), Inmarsat B, Inmarsat C, or Inmarsat M.

Position updating. The same requirements for updating position information used in automated distress alerting systems proposed by the commission in § 80.1085(e) are applicable to this Subpart as well. The Coast Guard proposes new subparagraph **§ 80.905(a)(5)**: "All vessels must additionally meet the requirements of § 80.1085(e)."

§ 80.905(a)(3)(iv) and (4)(iv): The Coast Guard proposes that the following words be added to the end of these subparagraphs, consistent with changes proposed in § 80.1099: ", including the navigation receiver referred to in § 80.905(a)(5)."

§ 80.933(c): This provision on small passenger vessels (i.e., less than 100 grt) will cause confusion since (a) the USCG is currently engaged in a process to find a correspondence between domestic gross register tonnage and international (ITC) tonnage for small passenger vessels; and (b) such vessels are essentially exempt from the US implementing requirements for STCW (including the GMDSS aspects) only when engaged on domestic voyages. The USCG urges the Commission to remove the exemption for 'international voyages' -- i.e., restrict the exemption to domestic voyages -- under § 80.933(c). Note that the domestic v. ITC tonnage issue may have ramifications for other aspects of Part 80 regulations which are keyed to '300 gross ton'.

Additionally, the temporary exemption for MF radiotelephone requirements should be based upon provisions for a shore-based Sea Area A2 (MF) service only, and not on provisions of a Sea Area A1 (VHF) service.

Subpart U - Radiotelephone Installations Required by the Bridge-to-Bridge Act

Vessels operating in major harbors have increasingly experienced severe and disruptive interference on VHF channels used for bridge-to-bridge safety communications. This interference is believed to be caused by high power VHF operations in bands adjacent to the maritime band, including VHF pagers and NOAA weather radio. In 1996, the USCG asked the DOD Joint Spectrum

Center to undertake an independent survey and technical analysis of pager interference along the New Orleans/Baton Rouge waterway areas. The survey indicated the likely sources of interference to maritime transceivers were a mixture of signals from various high-powered transmitters located in close proximity to navigable waterways. In response to this problem, the Radio Technical Commission for Maritime Services developed a performance testing standard for installed maritime VHF radiotelephone receivers designed to maintain successful reception in the presence of high level electromagnetic environments such as those where severe interference to VHF maritime safety channels were experienced. That standard, RTCM 87-99/SC117-STD, has been published and is available from RTCM (see http://www.rtcm.org).

To help ensure mariners subject to the Bridge-to-bridge Act can communicate with each others in the presence of high level electromagnetic environments, the USCG proposes that the following words be added as a note to § 80.1003:

Note 1
"Vessels operating in high level electromagnetic environments may experience interference on bridge-to-bridge radiocommunications frequencies which may preclude their ability to meet the requirements of this section; radiotelephone installations which meet the requirements of RTCM 87-99/SC117-STD are designed to maintain successful reception in such areas. That standard is available from the Radio Technical Commission for Maritime Services (see http://www.rtcm.org)."

EPIRBs, Subpart V and consequential changes.

The FCC sought comments on their proposal regarding EPIRBs. The USCG supports the FCC proposal. However, the following regulatory changes are proposed:

§ 80.870: Since Class S EPIRBs are not required under 46 CFR, revise paragraph (a) to read as follows:

(a) A Class S survival craft emergency position indicating radiobeacon, (EPIRB) ~~required to be carried to comply with title 46 of the Code of Federal Regulations~~ must meet the provisions of Sec. 80.833.

§ 80.1051 With the removal of § 80.1057, Class C EPIRBs will no longer be described in this subpart. Therefore revise 1051 to read as follows:

This subpart describes the technical and performance requirements